

Duke, Daphne

From: Mary Shoemaker <MShoemaker@aceee.org>
Sent: Wednesday, October 13, 2021 1:16 PM
To: PSC_Contact
Cc: Bryan Howard; Rachel Gold
Subject: [External] Letter of Support for Docket Nos 2021-143-E and 2021-144-E
Attachments: ACEEE Support Letter_Docket Nos 2021-143-E and 2021-144-E..pdf

Dear. Ms. Boyd,

I am reaching out to submit the attached letter of support on behalf of the American Council for an Energy-Efficient Economy as part of Docket Numbers 2021-143-E and 2021-144-E. We appreciate the opportunity to comment on Duke Energy Progress, LLC and Duke Energy Carolinas proposed Smart \$aver Solar as Energy Efficiency program.

Could you please file them in the appropriate proceedings?

Please let me colleague Bryan know (CC'd) if we need to take additional steps to submit our letter, as I will be out of the office for the next two weeks.

Best,
Mary

Mary Shoemaker
Senior Research Analyst



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American Council for an Energy-Efficient Economy

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October 13, 2021

The Honorable Jocelyn G. Boyd
Chief Clerk/Administrator
The Public Service Commission of South Carolina
101 Executive Center Drive, Suite 100
Columbia SC 29210

Re: Docket No. 2021-143-E and 2021-144-E - Letter of support for Duke Energy's Smart \$aver Solar Energy Efficiency program.

Dear. Ms. Boyd,

The American Council for an Energy-Efficient Economy (ACEEE) appreciates the opportunity to comment on Duke Energy Progress, LLC and Duke Energy Carolinas (collectively 'Duke') proposed Smart \$aver Solar as Energy Efficiency program (Smart \$aver Solar, the "Program"). ACEEE helps utilities, regulators, state and federal leaders, and other organizations identify energy efficiency opportunities and design state-of-the-art policies and programs suitable for today's diverse utility industry. In our comments below, we express our support for Duke's proposed Smart \$aver Solar program (the Program) and offer recommendations based on the experiences of utilities interviewed through ACEEE research.¹

Programs that integrate energy efficiency, solar, and battery storage (solar+) combine the benefits of these distributed energy resources such as grid stability, resilience, emissions reductions, and energy savings. If designed and delivered correctly, the Smart \$aver Solar program can enable Duke Energy to streamline and maximize customer benefits from its energy efficiency and customer-based renewable energy programs. The proposed Smart \$aver Solar program would position Duke well among peer utilities, as residential smart thermostat programs are common among existing integrated energy efficiency and demand response programs.² ACEEE agrees with Duke that the program should complement, not replace, its existing energy efficiency offerings.³

The proposed Smart \$aver Solar program will deliver utility bill savings to program participants and offer streamlined access to home energy services. Smart thermostats and Wi-Fi-enabled appliances and

¹ *Integrated Energy Efficiency and Demand Response Programs*, York, Relf, and Waters 2019: www.aceee.org/research-report/u1906; *Integrating Energy Efficiency, Solar, and Battery Storage in Utility Programs*, Srivastava, Bastian, Amann, Gold, Grossberg 2020: www.aceee.org/research-report/b2001.

² York, Relf, and Waters 2019

³ Direct Testimony of Tim Duff, page 7, Dockets 2021-143-E, 2021-144-E.

devices allow utilities to simultaneously provide customers with energy efficiency incentives and enroll them in demand response programs. The Program will provide customers with higher electric demand and a convenient one-stop-shop for home energy services. We commend Duke's plans to offer a low-income version of the proposed Smart \$aver Solar program,⁴ and we recommend as part of this program that Duke offer easily accessible financing to help low-income customers pay for these technologies that can lower their utility bills.

ACEEE research finds that programs like the proposed Smart \$aver Solar program have the potential to benefit utilities by allowing them greater influence over customer-cited generation, reduced system costs, enhanced reliability, and optimized grid performance. We have also found that such programs can help avoid transmission and distribution losses, which can increase utility system efficiency. Programs like the proposed Smart \$aver Solar program also have the potential to enable more efficient and integrated program administration for utilities.

Duke can take several steps to maximize benefits and minimize costs for its customers beyond using the Program to increase customer awareness of and participation in its other energy efficiency and demand-side management programs. We encourage the utility to help participants in the proposed Smart \$aver Solar program implement home energy efficiency improvements up front, which will result in monthly bill savings that customers can use to help finance their solar systems. Integrated programs might increase initial project costs for customers, so it's important to offer them robust financing, ideally offsetting these costs with energy savings.⁵ Duke Energy should and could design the proposed Smart \$aver Solar program with complementary rates to ensure they are maximizing customer benefit and system value, which would likely point to time-varying rates.⁶

Duke should continue to pursue integrated programs when the net benefits—such as a streamlined customer experience, more efficient administration, fully capturing the resources' value streams—outweigh the costs of integration. Duke should integrate internal resources and pursue other organizational changes that reduce bureaucratic hurdles and support the implementation of energy efficiency and demand response. Additionally, Duke should document and share results to promote its successes and increase customer awareness of its programs.

We also note that the South Carolina Public Service Commission (the Commission) can separately consider regulatory actions to create a more supportive environment for integrated efficiency, solar, and demand response programs. The Commission can value the multiple benefits of solar+ programs in cost-effectiveness tests, enabling investment in programs that offer value to the system and participants. The Commission can align cost-effectiveness testing with the South Carolina energy policy to unlock better valuation of these resources. Additionally, the Commission can incentivize utilities to provide an integrated efficiency and demand response portfolio by expanding utilities' shared savings

⁴ Direct Testimony of Tim Duff, page 9, Dockets 2021-143-E, 2021-144-E

⁵ Srivastava et al. 2020

⁶ *Rate Design Matters: The Intersection of Residential Rate Design and Energy Efficiency*, Baatz 2017: www.aceee.org/research-report/u1703

performance incentives to include demand reduction targets. The Commission can also work with program administrators to streamline their offerings and reduce administrative complexity.

ACEEE is pleased to see this proposed opportunity to integrate distributed energy resources and maximize cost and environmental benefits for South Carolinians. We stand ready to support Duke Energy, the Commission, and South Carolina stakeholders with relevant research and resources as they develop and implement the proposed Smart \$aver Solar program.

Sincerely,

A handwritten signature in black ink that reads "Mary Shoemaker". The script is cursive and fluid.

Mary Shoemaker

Senior Research Analyst

American Council for an Energy-Efficient Economy

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